



**MINUTES OF THE ENVIRONMENTAL REVIEW BOARD (ERB)**  
**Santa Monica Mountains**  
**MEETING OF 20 April 2009**  
(Minutes approved on June 15, 2009)

**PERSONS IN ATTENDANCE:**

**ERB MEMBERS**

Rosi Dagit  
Dr. Noël Davis  
Ron Durbin (Deputy Forester)  
Suzanne Goode  
Dr. Margot Griswold  
Richard Ibarra (absent)  
Dr. Travis Longcore  
David Magney (absent)

**REGIONAL PLANNING STAFF**

Dr. Shirley Imsand (Biologist, ERB coordinator)  
Jeff Juarez (Impact Analysis Section)  
Adrienne Ng (Ordinance Studies)

**Project No. R007-01153, RPP 2008-01163**

**1752 Corral Canyon Road, Malibu, APN 4461-004-018**

Clive Dawson	310-589-1921
Joan Borsten	310-589-2496
Oleg Vidon	310-589-2496

**Project No. R2009-00221, RPP 2009-00156**

**2690 Barrymore Drive, Malibu, APN 4461-005-049**

David Hardie	310-993-3369
Douglas Lindfors	310-477-1547
Susan Saltz	310-413-7739
Courtenay Moritz	310-477-1547

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**AGENDA ITEMS & PAGINATION:**

1. Minutes of February 23, 2009, p. 2
2. Presentation and discussion of proposed revisions to the County Zoning Ordinance for Oak Tree Permits, pp. 3-4

**OLD BUSINESS**

3. **Project No. R007-01153, RPP 2008-01163**  
1752 Corral Canyon Road, Malibu, APN 4461-004-018, pp. 5-9

**NEW BUSINESS:**

4. **Project No. R2008-02445, RPPT 2008-01674**  
3600 Kanan-Dume Road., Malibu, CA, APN 4465-004-045, pp. 10-13

**OTHER MATTERS**

5. **Public comment** pursuant to Section 54954.3 of the Government Code.

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**NOTE: ERB MEETINGS ARE INFORMAL WORKING SESSIONS. MEMBERS ARE APPOINTED AS VOLUNTEERS TO SERVE IN AN ADVISORY CAPACITY. MINUTES ARE PREPARED BY PLANNING STAFF PRIMARILY FROM NOTES. MEETINGS ARE ALSO RECORDED ON TAPE WHICH IS USED PRIMARILY AS A BACK-UP FOR STAFF. VISITORS ARE ADVISED TO TAKE PROPER NOTES AND/OR RECORD THE MEETING. NEW OR CLARIFIED INFORMATION PRESENTED IN BIOTA REVISIONS MAY RAISE NEW ISSUES AND REQUIRE FURTHER ANALYSIS. MINUTES ARE GENERALLY APPROVED AT THE FOLLOWING MEETING. DRAFT MINUTES MAY BE REQUESTED BUT ARE SUBJECT TO REVISION.**

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**ERB MINUTES**

**20 April 2009**

1. **Minutes of February 23, 2009** have not been finalized for approval by ERB. The minutes will be emailed to the ERB for review and comment. Comments will be forwarded to the ERB Coordinator, Shirley Imsand, who will disseminate the minutes and comments to Paul McCarthy and Rudy Silvas of Impact Analysis, and to the applicant, Mr. Sutnar, for review. Final approval of the minutes will occur during the May 2009 ERB meeting.

2. Adrienne Ng, Department of Regional Planning, Ordinance Studies, conducted a presentation of the proposed revisions to the County Zoning Ordinance for Oak Tree Permits.

**ERB COMMENTS AND RECOMMENDATIONS ON THE PROPOSED REVISIONS:**

ERB stated that the vision is that the oak tree ordinance and oak woodland ordinance or policy would complement and support one another. At present a group of oak experts and economists is meeting regularly to develop a document recommending policy on oak woodland protection and conservation that will inform Los Angeles County provisions for saving native oaks.

Rename the ordinance from “oak tree ordinance” to “oak ordinance,” as a way to include and protect multi-trunk oak species.

The ERB pointed out that scrub oak trunks are often less than 3 inches in DBH (diameter at breast height, which is standardly measured at 4.5 ft. above grade), and they rarely achieve 5 inches DBH. In addition they are typically multi-trunked. The ERB recommends protecting scrub oaks by using a base measurement for species that are scrub oaks, and enabling multiple trunk measurements for determination of protected scrub oak trees.

The ordinance should note that tree age and size are not related, that size depends on the species and on site conditions for growth. More important is how the oak is functioning in the landscape (i.e., is it preventing erosion, performing temperature moderation, protecting habitat values, etc.).

Administrative review should apply to only one tree or encroachment on three (3) trees. Expanding it to cover more trees diminishes the value of the resource we are trying to protect. There should be a stated definition of minimum encroachment on three (3) trees that is allowed for the administrative permit.

Exclude valley oaks from the administrative process. Valley Oak removal should require a public hearing,

There should be some prohibitory language that prevents sequential administrative permits allowing one-at-a-time removal of oaks from the same parcel.

ERB supports fines for retroactive permits.

ERB supports extending maintenance requirements on plantings to seven (7) years.

Update the ordinance purpose to make the oak tree permit seem less of a regulatory burden and more of a method to protect the oak resource. Include language that emphasizes the beneficial value of the oaks to the property owner and to the community: for example, fire protection, erosion control, habitat provision, property value enhancement.

Environmental assessments should be informing design of projects. Environmental assessments should be done first in the process along with geotechnical investigations. In this way, applicants may design to avoid impact to oaks and other natural resources.

**Require permits for development actions such as percolation tests, exploratory drilling, and brush clearance because many oaks are lost or damaged when these actions are performed. If the parcel is in oak woodlands, the applicant needs to prove that there are no oaks on the property before getting an exploratory permit.**

**Utilities need to apply for and receive permissions in form of standard permits to trim oak trees. The exemption for utility maintenance may be modified to exempt only for situations currently needing an EOTP (Emergency Oak Tree Permits, which are expedited). Verification by County Forester should still be required. Routine pruning should be done according to conditions in standard permits, should be done by certified tree trimmers (who are also arborists) using ISA standards, and should only be done outside of bird nesting season. Also regarding exemptions, the ERB requests that brush clearance from (410B) be verified after the clearance by the County Forester, and that any EOTP also be verified after the fact by the forester. (ISA is the International Society of Arboriculture, which provides standards to the industry.)**

**The ERB pointed out that lost resources such as oaks cannot be replaced. Therefore, the ratio of compensation or new trees should be commensurate with the size and function of the trees that are being removed. These “mitigation” trees should not be called “replacement” trees, but “new” trees.**

**The ERB suggested clarification on the meaning of “replacement value” and “resource value.” The ERB commented that “replacement value” currently is understood to be the object cost of replacing the individual tree (the ISA/CTLA value). This does not replace the “resource value,” which includes what that tree contributes to its environment (stormwater protection, erosion control, air temperature moderation, air pollution filtration, carbon sequestration, habitat values, public health values, etc. (CTLA is Council of Tree and Landscape Appraisals.)**

**Carbon sequestration needs to be considered. In January 2009 legislation was passed for this (AB32) and the California Oak Foundation has published analysis and advice to counties on its consideration with respect to oak trees.**

**Strengthen the standards for utility trenching to avoid digging into roots. Arborists now have authority for traffic control at construction sites, and they also need authority to revise activities such as grading and trenching that damage root systems. Trenches should be constructed by hand within tree protected zones, and the arborist should have authority to move trenching and the like out of protected zones where possible to avoid oak tree roots.**

**ERB recommends that enforcement include requirements that damages done to oaks be repaired, encroachments shall be removed, and the site returned to pre-impact condition. Violators should be required to make payment into the County Oak Tree Special Fund. In lieu fees might also be used for education about oaks, their benefits, their care.**

**ERB states that the County needs protection for other native trees that provide habitat in a similar manner as oaks, such as Southern California Black Walnut, Western Sycamore, California Bay.**

**OLD BUSINESS**

**3. Corral Canyon Holdings, APN 4461-004-018**

**Project No.** R2007-01153/RPP 2008-01163

**Location:** 1752 Corral Canyon Road, Malibu, APN 4461-004-018

**Applicant:** Clive Dawson of Dawson Architects for Joan Borsten, Corral Cyn. Holdings, LLC

**Project:** Continue review of a proposal for new, 2-bedroom guesthouse of 750 sq.ft with attached garage of 484 sq.ft. totaling 1,234 sq. ft. and driveway extension of approximately 200 sq.ft.: hardscape addition of approximately 1,434 sq.ft. footprint. The new guesthouse will be at 200 ft. N of an existing single family residence. The lot is 95,666 sq.ft. (2.2 acres) with existing 2-story single family residence with attached garage and basement, existing coverage 8,365 sq.ft.: 7,544 sq.ft. floor and 1,058 sq.ft garage. Original proposed grading was 220 cu.yd. cut and 360 cu.yd. fill. Water source is Las Virgenes Water District and sewage disposal is a septic system. There are no jurisdictional oaks on the property. The new and revised plans include a statement on guest house siting, engineering report on wastewater system with plan, remedial slope repair plan for a landslide area needed to rebuild 5 structures (cut 895 cu.yd., fill 895 cu.yd.), fuel modification plan, and preliminary grading plan (75 cu.yd. cut, 155 cu.yd. fill, 80 cu.yd import). Project first reviewed at ERB meeting on September 22, 2008.

**Resource:** Project is on the **Significant Ridgeline** and in the **Significant Watershed of Corral Canyon SERA (Sensitive Ecological Resource Area)** of the Santa Monica Mountains:

**Request:** **Review plans for guest house, sewage system, and remedial grading plan for slope failure area. The ERB recommendations will be used as guidelines for the Director's Review and as part of any necessary environmental review of the project under the California Environmental Quality Act (CEQA).** Projects normally exempt from CEQA are subject to environmental review when in sensitive locations [PRC §15300.2(a)].

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**ERB Meeting Date:** April 20, 2009

**ERB Evaluation:**      Consistent   X   Consistent after Modifications  
     Inconsistent      No decision

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**Applicant Presentation:**

The applicant stated that questions had been raised about the location of the guesthouse, and the ERB had requested that the location be moved. The applicant contends that the proposed location would have the least disturbance to any of the ERB areas of concern because it is the flattest area on the site, contains exposed bedrock, and therefore, would result in less grading, least disturbance for biological resources, and best access for the guesthouse. The current proposal is 200 feet from the landslide, and a closer location will be only 100 feet from the landslide. The closer location is twice as steep,

and therefore to it locate at the head of a drainage area will require more grading and construction that will be much more expensive.

The applicant commented that the proposed extended driveway is in response to a safety issue. A fire burned the attached garage at the end of the previous driveway, which had a dead-end. A driveway extension for the existing residence is proposed to address this safety issue.

The applicant commented that the proposed slope repair is to address a problem with the slope that had worsened since purchase of the property. The applicant states that the Coastal Commission was willing to grant an emergency permit, but the County would not.

The applicant stated that the adjacent property to the north is private property.

Applicant states that the allowance on guest houses in the County areas is 750 sq.ft. A garage may be the standard for a two-car garage, which is 400 sq.ft., combining to 1150 sq.ft. if attached together. In the City of Malibu, guest houses may be 1000 sq.ft. with a garage of 400 sq.ft., combining to 1400 sq.ft if attached.

#### **ERB COMMENTS:**

- The ERB pointed out that the overall size of the project is very large, and ERB recommends reducing the overall size of the project.
- The ERB pointed out that it is difficult to rank the damage caused by grading as greater or less than the damage caused by fuel modification. Both are substantial impacts to the biology of the Corral Canyon ESHA at the base of the significant watershed, and these are public costs. Safety in a high fire zone requires the fuel modification, which may at first seem insubstantial. However, fuel thinning and removal results in waterway function problems which include: less infiltration to the soil; increased erosion which results in sediment and water load increase in the stream; and decline in sanitation for the stream and the outflow at the ocean. Studies have shown that fuel modification causes an increase in erosion processes that are 60 times greater than the erosion with the natural cover in place.
- Can the applicant move the guesthouse closer to the main house? ERB stated that the applicant's geotechnical report says that the proposed location for the guesthouse is fine, but it does not address why it cannot be located closer to the main house. There needs to be a compelling problem with a closer location, such as a safety reason of instability, for the ERB to approve the current, more distant location. Rephrase the geotechnical statement to be directed to the question. A relevant phrasing might be something such as "less safe without a substantial increment in grading" or something similar.
- The ERB is concerned that spreading out the project increases the impacts by extending the fuel modification area, extending what would be overlapping if the guest house were closer to the main house. Additionally, the current proposed location requires extending fuel modification onto the adjacent property. The guest house will be 100 ft. from the property line, and fuel modification will need to extend 200 ft. from the structure. If the applicant can show that an approved intended structure on the northern adjacent property will overlap in fuel modification requirements with the guest house, that would help to mitigate the effect of the extensive fuel modification. The ERB recommends moving the guesthouse closer to the main house to allow all of the fuel modification to be done on the subject property.

- A fuel modification plan is needed showing acceptable zones with dimensions. Zones A and B need to be defensible staging areas for fire fighting. The fuel modification plan should follow the standard regulations:
  - Zone A: 20 ft. wide; irrigated; non-invasive ground covers
  - Zone B: 30 ft. wide beyond Zone A; irrigated; contains non-invasive ground covers, native plants, deep-rooted perennials, some well-spaced shrubs and trees
  - Zone C: Beyond Zones A & B (to 200 ft. from the structure or to property line, whichever is less), mosaic of thinned, clumped, native vegetation, pruned on a staggered 2-3 year schedule, with clumps adjacent to one another in alternate pruning times.
- The ERB requests verification on the existence of an oak tree within 200 feet of the project, adjacent to the area proposed for the guesthouse. (A photo of leaves submitted to the County Biologist would suffice.)
- ERB commented that palm trees are not good choices for fire areas, and some are invasive in Los Angeles County. ERB recommends eliminating palm trees from the project. Other plants that have potential to be invasive and should be eliminated from the plans are the Rockrose, Clumping Gazania, Jerusalem Sage, and Cucamonga Brome (*Bromus arizonicus*).
- The overall planting plan should be modified to replace non-native plants with locally native plants. The current plan has no local native plants. Some non-native plants like the citrus trees will be all right next to the house.
- The landscaping should be thinned to reduce density.
- ERB also recommends using permeable, decorative rock mulch between plants.
- ERB recommends having native vegetation added to the slope repair seed mix to fill in the landscaping and assist in holding the slope.
- ERB recommends having a drought-tolerant landscape to reduce irrigation needs. In addition to reducing costs and drain on water resources, less irrigation will reduce problems caused by the invasive Argentine Ants that will eventually extend out to 600 ft. from irrigated areas, killing native invertebrates in this zone.
- ERB recommends using porous paving for hardscape.
- A drainage plan is needed showing 100% capture of a 3/4-in. storm, collecting both irrigation and rainfall runoff from roofs, driveways, and other hardscaped areas. For drainage and runoff control, ERB recommends using cistern(s) to capture and store for irrigation and fire-fighting purposes. Consult Internet resources for examples of ideas on cistern systems design. Cisterns may be located beneath buildings and/or driveways. A cistern below a driveway may require a permeable surface.

- ERB recommends that the proposed cistern should be functional (accessible for irrigation, fire fighting, etc.)

**ERB RECOMMENDATIONS:**

- The project shall be reduced in overall size.
- A letter shall be submitted by the applicant's geologist and soils engineer that must state a compelling reason why the guesthouse cannot be closer to the main house.
- A fuel modification plan shall be submitted showing acceptable zones with dimensions. Zones A and B need to be defensible staging areas for fire fighting and should have irrigation installed. The fuel modification plan should follow the standard regulations: Zone A: 20 ft., Zone B: 30 ft., Zone C: 100 ft. or to boundary of property, whichever is less.
- Native vegetation shall be added to the slope repair seed mix to fill-in the landscaping and assist in holding the slope.
- The project shall implement a drought-tolerant landscape to reduce irrigation needs.
- Non-native vegetation shall be replaced by native vegetation.
- Invasive and potentially invasive plants shall be removed from the project.
- The palm trees shall be removed.
- The overall landscaping shall be thinned. Decorative, permeable mulch such as rock, bark, etc., shall be installed between plants.
- A drainage plan shall be used to capture all of a 3/4 inch storm from all hardscape of the property. The proposed cistern shall be functional (accessible for irrigation, fire fighting, etc.).
- The hardscape shall be constructed of porous paving.
- The tree within 200 feet of the project shall be verified (with close-up and contextual photos of the tree).
- Exterior night lighting shall be minimized using low intensity (lights not exceeding 800 lumens), low stature fixtures (2.5-3 ft.). Lights shall be directed downwards with good shielding against projection into the nighttime sky, surrounding properties, and undeveloped areas. If DPW does not require public lighting, then none shall be used. Security lighting, if used, shall be on an infrared detector.

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**Staff Recommendation:**

<input type="checkbox"/> Consistent	<input checked="" type="checkbox"/> Consistent after Modifications
<input type="checkbox"/> Inconsistent	<input type="checkbox"/> No decision

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**Staff Recommendations:**

- Comply with all ERB recommendations.
- Before discing for fuel modification, all of the poisonous, invasive plant Castor Bean (*Ricinus communis*) should be dug out with shovels and discarded where the pieces cannot take root. The plant suckers readily, and roots left in the soil will produce new plants. The practice of removing Castor Bean before discing should continue until there are no more Castor Beans. See image: [http://en.wikipedia.org/wiki/Image:Castor\\_plant.jpg](http://en.wikipedia.org/wiki/Image:Castor_plant.jpg)



- **The tree on the private property north of the proposed guest house location is a Coast Live Oak, field verified by the County Biologist on May 20, 2009. Care should be taken not to injure the oak, using protective fencing at the oak's protected zone boundary before any grading or construction. Any digging in the vicinity of the oak protected zone should be done by hand, and measures should be taken to relocate trenches and similar construction to avoid oak roots when possible. The oak will be an enjoyable benefit to both properties if it can grow and prosper.**
- **It is difficult to predict what exotic plants may adapt genetically and become invasive. Therefore, all plant replacements should be with local natives. Toyons, Walnuts, and Oaks can all become excellent shade and landscape trees, and they have the added benefit of requiring only rainfall for irrigation.**
- **The guest house needs a local native landscaping plan. A plan using local natives entirely will cause fewer eventual conflicts with the native vegetation of the ESHA of Corral Canyon.**
- **Irrigation must be outside the protected zone of the oaks, or they will eventually succumb to an indigenous fungus and die. The summer drought is essential to oak health. Under oaks, use decorative, permeable cover. Native plants might be all right under oaks, as long as they can prosper without irrigation.**

**NEW BUSINESS**

**4. Barrymore Drive Improvement and Emerald Ranch residence  
Road**

**Improvement:** R2009-00221, Plot Plan RPP 2009-00156

**Parcel Nos.:** APN 4461-005-049, -038, -030, -010, -009 /APN 4461-006-021, -022, -029

**Residence**

**Project No.:** R2009-00221, Plot Plan RPP 2009-00156

**Location:** 2690 Barrymore Drive, Malibu, APN 4461-005-049

**Applicant:** David Hardie for Saltz

**Project:** **Review proposal to improve Barrymore Drive by increasing paving width in 5 areas and adding 2 hammerheads.** The road length is approximately 5000 ft. The widening is requested and approved by the Los Angeles County Fire Department to facilitate escape vehicles and fire trucks passing one another on the road. The widening is needed for certificates of occupancy for reconstruction of burned buildings. No jurisdictional oaks are within 200 ft. of the proposed widening. Road widening does not involve grading.

**Review proposal for new single family residence to be built on site of former dwelling now burned.** Existing landscaping is a combination of native and exotic trees. The mature native trees indicate a water source close to the surface (sycamores, maples, bay). There are no jurisdictional oak trees on the residence parcel within 200 ft. of the proposed buildings. The proposed two-story house footprint is 5184 sq.ft. (first floor). There is a 390 sq.ft carport, a second floor of 4263 sq.ft, with a 1205 sq.ft. balcony, totaling 10966 sq.ft. according to plans. The guest house is over a detached garage of 992 sq.ft. and 118 sq.ft. storage area, total 1110 sq.ft. The new design for the guest house is 746 sq.ft with no kitchen. The base of the stair tower to the guest house is 159 sq.ft. Grading will be 3720 cu.yd. cut, 1080 cu.yd. fill, 2640 cu.yd. export, disturbing 1.1 acres of the 2.5- acre parcel.

**Resource:** The proposed single-family house will be in a **SERA (Sensitive Ecological Resource Area)** of the Santa Monica Mountains, the **Solstice Canyon Significant Watershed**.

**Request:** **Review plans for proposed house in the Solstice Canyon Watershed and improvements to the approach on Barrymore Drive, which are chiefly paving of passing areas on the narrow road.** Projects to maintain safety are exempt from environmental review [PRC §15269(b)], but if they can be done with consideration of minimal environmental impact, that is preferable. **The ERB recommendations will be used as guidelines for the Director's Review and as part of any necessary environmental review of the project under the California Environmental Quality Act (CEQA).** Projects normally exempt from CEQA are subject to environmental review when in sensitive locations [PRC §15300.2(a)]

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ERB Meeting Date: April 20, 2009

ERB Evaluation:             Consistent                        X   Consistent after Modifications  
                                       Inconsistent                           No decision

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The ERB coordinator stated that the requests for the road improvements (primarily a safety issue of widening of the road) and house are combined in the same application, and so the two need to be considered together.

**Applicant Presentation:**

The project is in two parts. Part 1 includes the road improvements the applicant worked out with the Fire Department to address fire safety: 5 areas widened to 20 feet, and 2 hammerheads for turn-around space, paved with asphalt. The road needs to be approved before the rebuilding of the homes (destroyed by fire). The 20-foot wide areas permit passing; the narrowest parts are 9 feet wide.

Part 2 is revised plans for the house and guesthouse, which were distributed to the ERB. All of the development for the project will occur in the area and pad that had already been developed; no new areas will be cleared or graded. A terrace of about 18 inches in height will be created to go between the garage and the rise to the house.

The applicant pointed out the changes to the guesthouse shown on the revised plans. The guesthouse was round on the previous plans, but the new plans show it as square.

The guesthouse area over the four-car garage is reduced to 750 sq.ft. The extra area becomes an outdoor deck, and there is no kitchen. The carport attached to the main house is to facilitate staging of materials to the house. Doors of the residences face south towards the ocean based on Fire Department recommendations to be opposite the most probable side of fire approach, which is wind-driven from the north. Water will be retained on-site, and the applicants are working on this with their civil engineer. Cisterns will be installed on-site.

Proposed for the motor court is decomposed granite with a stabilizer, a compacted pea gravel cap to reduce erosion, and 1 foot of compacted material to stabilize for fire services. Applicant hopes to retain fruit trees (almonds and avocados) and plant citrus irrigated with a drip system.

**ERB COMMENTS:**

- If the project were in a new development with access of a 5000-foot, essentially single-lane road, it would probably not be permitted due to the zone designation of “extremely hazardous for fire safety.” This is because the remote location for services such as Fire Department, put the location “in the line of danger.” Plans should include accommodation for both “shelter and protect strategies” and “evacuation.” For evacuation, residents should leave early in order to avoid having vehicles die from lack of oxygen sucked up by the approaching fire.

**Road improvements**

- Drainage for the road needs to be considered carefully to minimize erosion on the steep dropoff to Solstice Canyon, not only for minimizing effects on Solstice Canyon, but also to maintain the

road. Many techniques are possible. Consider velocity dissipaters, which come in many designs. County Biologist should check the plans submitted for adequate erosion control.

- Mustard along the entry road is a fire hazard and should be addressed as soon as possible.

House:

- The house and landscaping shall be in earth tones to camouflage the structures, coordinating with the color of soil, rocks, and native vegetation of the site. Use of native vegetation in landscaping will help screen the structure.

Fuel modification

- The ERB pointed out the abundance of existing flammable trees (mostly eucalyptus, pine, and palms) on the site and recommends their removal, especially those on the north side of the property near the guesthouse, due to the probable direction of approach of fire. The ERB stated that the eucalyptus trees do not provide the habitat that oaks can provide, they probably consume so much water that the water table is lowered, and they are highly flammable. Some eucalyptus can kill local native birds due to the gummy substance in the flowers, which can clog birds' nostrils. (Birds in Australia where the Eucalyptus are native have longer beaks and are not affected.) Eucalyptus ignite quickly, posing a potential danger to adjacent properties, and the residence is in a high fire hazard area.
- Trees under or growing within power lines are a fire hazard, especially because tree branches with wind can start fires. Edison will cut the trees to below the lines for the applicant, and then the applicant may have a tree trimmer take them completely out.
- In order to retain landscaped look, ERB recommends removing eucalyptus, pines, and palms gradually and replacement with natives after each removal. Start with removals on the north side. Other fire-prone trees that can be removed are Pepper and Podocarpus.
- *Vinca major* is invasive and water-intensive, and should be removed from the plant palette.
- A fuel modification plan is needed showing acceptable zones with dimensions. Zones A and B need to be defensible staging areas for fire fighting. The fuel modification plan should follow the standard regulations:

-Zone A: 20 ft. wide; irrigated; non-invasive ground covers

-Zone B: 30 ft. wide beyond Zone A; irrigated; contains non-invasive ground covers, native plants, deep-rooted perennials, some well-spaced shrubs and trees

-Zone C: Beyond Zones A and B (to 200 ft. from the structure or to property line, whichever is less), mosaic of thinned, clumped, native vegetation, pruned on a staggered 2-3 year schedule, with clumps adjacent to one another in alternate pruning times.

Drainage and on-site water retention

- ERB recommends using a permeable material for the motor court to increase on-site water retention.
- A drainage plan is needed showing 100% capture of a 3/4-in. storm, collecting both irrigation and rainfall runoff from roofs, driveways, and other hardscaped areas. For drainage and runoff control, ERB recommends using cistern(s) to capture and store for irrigation and fire-fighting purposes. Consult Internet resources for examples of ideas on cistern systems design. Cisterns may be located beneath buildings and/or driveways. A cistern below a driveway may require a permeable surface.

- The septic system needs to be shown on plans before installation.

**ERB RECOMMENDATIONS:**

- Plans shall include accommodation for both “shelter and protect strategies” and “evacuation.”
- The erosion control issues associated with the road shall be adequately addressed.
- Mustard along the entry road is a fire hazard and shall be addressed as soon as possible.
- The house and landscaping shall be in earth tones to camouflage the structures.
- A majority of the existing flammable trees, including the eucalyptus, pine, and palms, shall be removed, especially those on the north side of the property near the guesthouse.
- Trees below power lines shall be removed and not replaced.
- Start with removals on the north side, and gradually replace flammable exotic trees with natives.
- *Vinca major* shall be removed from the plant palette.
- A fuel modification plan shall be submitted showing acceptable zones with dimensions. Zone A: 20 ft., Zone B: 30 ft., Zone C: 100 ft. or to boundary of property, whichever is less.
- Use a permeable material for the motor court to increase on-site water retention.
- A drainage plan is needed showing 100% capture of a 3/4-in. storm, collecting from all hardscape. Incorporate cisterns with useable water into this system.
- The plans shall include a septic system.
- Exterior night lighting shall be minimized using low intensity (lights not exceeding 800 lumens), low stature fixtures (2.5-3 ft.). Lights shall be directed downwards with good shielding against projection into the nighttime sky, surrounding properties, and undeveloped areas. If DPW does not require public lighting, then none shall be used. Security lighting, if used, shall be on an infrared detector.

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**Staff Recommendation:**

<u>          </u> Consistent	<u>    X    </u> Consistent after Modifications
<u>          </u> Inconsistent	<u>          </u> No decision

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Comply with all ERB recommendations.